

NORTHWEST LIVING: EXOTIC IN WALLINGFORD

TASTE: TENDER IS THE STURGEON

PLANT LIFE: THE DRY LOOK

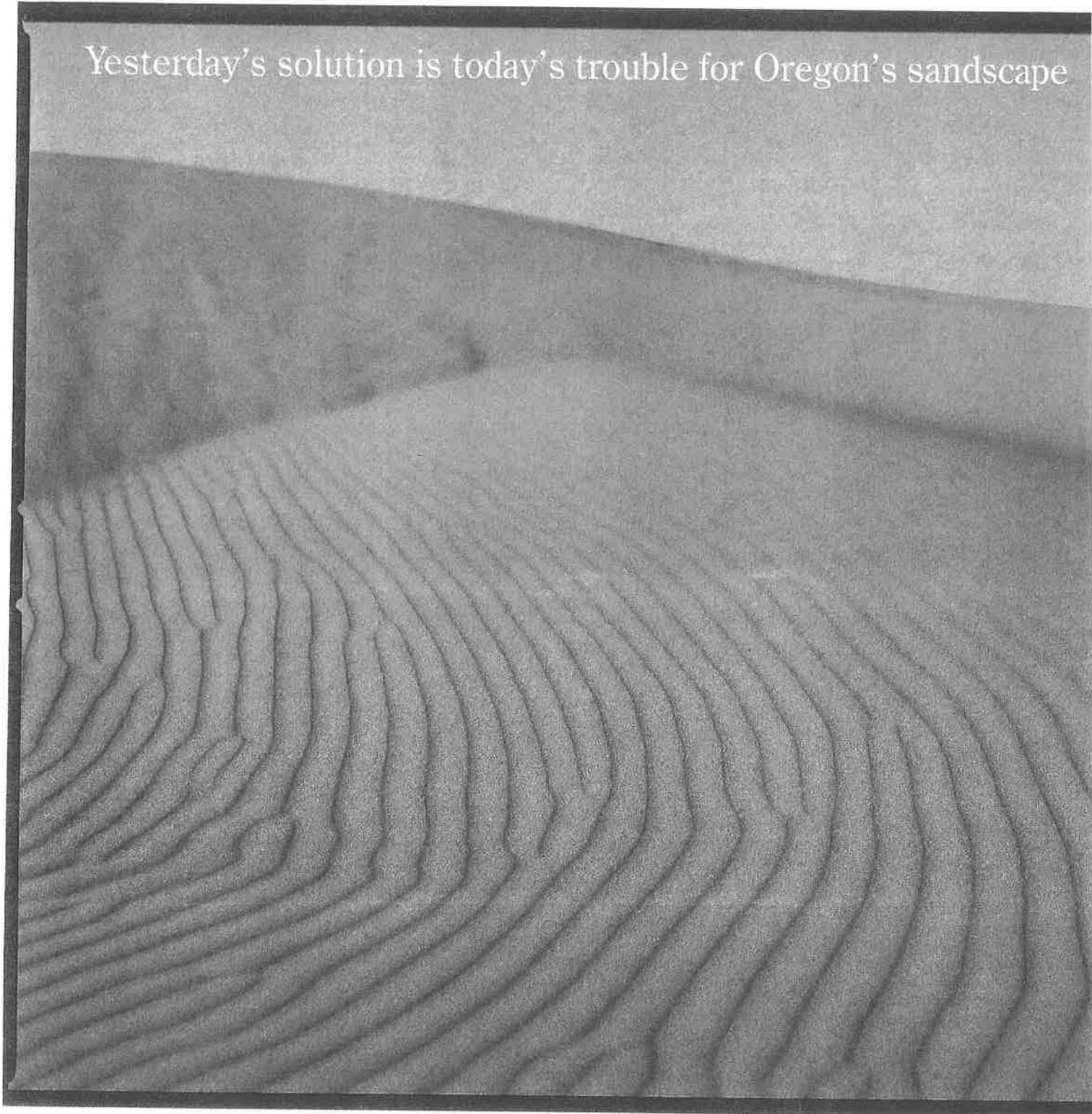
PACIFIC NORTHWEST

NORTHWEST PLACES

Oregon's grand sands are running out of time

DUNES

Yesterday's solution is today's trouble for Oregon's sandscape



Wind and water help create sand ripples at Umpqua Scenic Dunes, just as they help create the dunes themselves.

BY RICHARD SEVEN

PHOTOGRAPHED BY HARLEY SOLTES

The Incredible Shrinking Dunes



THE NORTHWESTERLY WIND ARRIVES at dusk on the Oregon Dunes after the off-road contraptions, the trekkers, the scientists and the critters have cleared out. It sweeps up after them all, hugging the contours of the swales and mounds with 30-mph blasts that will have the dunes polished and perfect by morning.

It is more about survival than housekeeping, though. These dunes must keep moving to stay alive and bare. They have been morphing and migrating grain-by-grain like this for thousands of years.

Scientists call it geology in action and it makes the Oregon Dunes National Recreation Area one of the strangest places on earth. It is both soft and stark, imposing yet subtle. It is countless tons of sand built with granules one-tenth of a millimeter in diameter and millions of years in the making. When the sun sets and the shadows play tricks, it takes on a lunar glow. In fact, Frank Herbert walked out here 40 years ago and envisioned "Dune," his science-fiction masterpiece.

Hemmed in between the ocean and Highway 101, the dunes stretch 40 narrow miles along the central Oregon coast between touristy Florence and the working burg of Coos Bay. The dunes are pierced by the Siuslaw and Umpqua rivers, 32 lakes, ephemeral ponds and thick forests. They hold some of the Northwest's purest sandy beaches, reach heights of 200 feet,

change shape with the seasonal winds and are home to more than 400 wildlife species.

They are shared — grudgingly — by solitary hikers who trudge through acres of loose sand to be as alone as possible and by off-road riders who grind up and down the hills in motorcycles and buggies that sound like angry mosquitoes. Geologists auger deep, looking for grains that will explain just how, when and why these miles of piles got here. Wildlife protectors patrol its upper beaches to save a threatened shorebird so tiny it looks like a cotton ball with legs.

They all must abide with U.S. Forest Service rules that satisfy none of them, but nature will have the final say. The dunes are being swallowed by advancing grass, shrubs and trees.

The onslaught, 22 feet a year in some places, is led by European



Wilbur Ternyik, former Florence mayor and a dune-stabilization expert, planted much of the beachgrass for government agencies trying to keep sand out of river channels and off roads.

beachgrass, a coarse and feisty non-native plant that looks like the head of a whisk broom and thrives in sand. Government agencies planted thousands of acres along Oregon's coast, mainly between 1910 and 1963, to pen unruly dunes and prevent sand from blowing across roads, onto railroad tracks and into navigable rivers.

At the time, the only good dune was a dead dune.

Now the Forest Service is trying to kill the grass and save the sand. They are burning, bulldozing, whacking and hand-spraying, but they will be able to only slow the advance. The grass is too stubborn and far along. There is

'European beachgrass is a super-good sand stabilizer and a naturalized citizen of the United States. You just have to use it right. Too many people didn't.'

WILBUR TERNYIK



A 1958 photograph shows workers planting European beach grass in the South Jetty area of the Oregon Dunes. At right, the same area in 1998.

The Incredible Shrinking Dunes

not enough money, time or understanding of nature's nuances to do anything more.

The Forest Service estimates the dunes could essentially be covered by vegetation in 50 years, reducing bare sand in one of the world's most expansive coastal dune formations to freak-show status. The magnificent dunes are disappearing because we learned we could control them, but didn't realize we could do it so well.

"Nobody is expecting we'll get rid of all the vegetation," says Siuslaw District Area Ranger Ed Becker. "I'd just like to make sure that years from now people

can come to the Oregon Dunes and see dunes."

Several geologists say the government shouldn't even try. The dunes are too far gone and have cycled between blowing free and forested through their history. You need only see the tree islands, rings of ancient trees half buried and isolated amid sand fields, like poles poured in cement, to understand that sand and vegetation have battled before.

Geologists who point this out, however, don't have constituents. The recreation area is not only a physical wonder; it is 32,000 acres of disagreement among groups wanting to sculpt the shrinking

dunes in their images.

The contention is about more than sand and grass. It is about keeping a dwindling resource going, a re-tooling coastal economy afloat, a bird alive and wildly diverse users reasonably happy. Ultimately, it will be about adjusting to an ecosystem we so radically adjusted to ourselves.

A WILDLIFE BIOLOGIST NAMED Roberta Swift walks with purpose on the powdery sand above the high-tide mark of North Siltcoos Beach. She's got a rolled-up wire fence under one arm and a telescope under the other. Two Forest Service employees lug

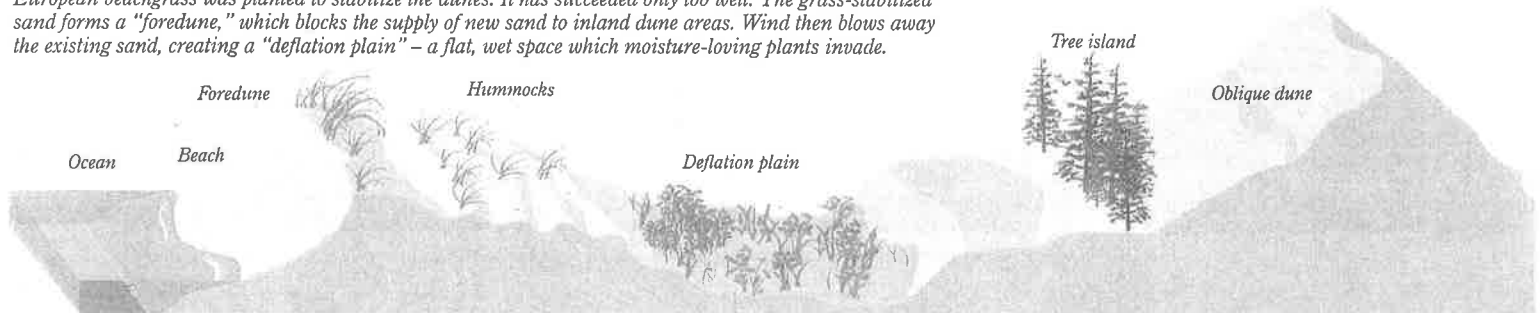
stakes and mallets.

She walks the beaches daily looking for nests of the Western snowy plover, a black-and-white, sparrow-size shorebird that went on the federal threatened-species list in the early '90s. Grass has taken so much of their habitat that the birds now must nest near the mouths of creeks and rivers.

Swift, 29, has spotted a nest, a slight depression in the sand that holds two gray- and black-speckled eggs. As she approaches, two plovers, mom and dad, skitter toward the surf to distract her from the nest. That's their only defense against predators and why the grass >

How European beachgrass has changed the dunes

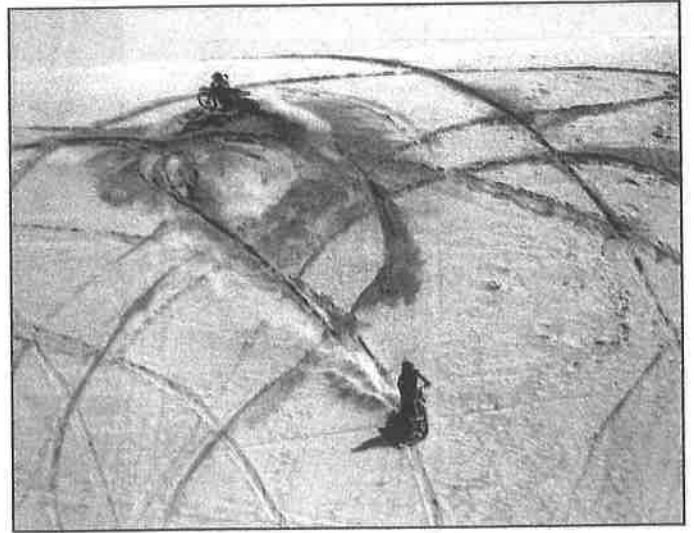
European beachgrass was planted to stabilize the dunes. It has succeeded only too well. The grass-stabilized sand forms a "foredune," which blocks the supply of new sand to inland dune areas. Wind then blows away the existing sand, creating a "deflation plain" — a flat, wet space which moisture-loving plants invade.





The Forest Service estimates the dunes could essentially be covered by vegetation in 50 years.

Off-road bikers carve up a steep dune, known as "Showoff Hill," along the South Jetty area.



European beachgrass is still being planted near the recreation area and all along the Oregon Coast to stabilize sand and pave the way for more development.



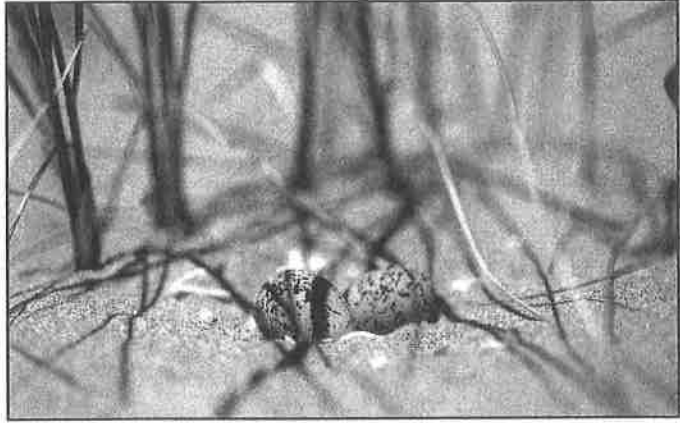
PAUL SCHMID



A pair of plovers anxiously wait while biologists erect a pen around their nest on the beach at North Sillcoos Beach.

Above right - Plovers lay their eggs in open sand above high tide. European beachgrass has not only reduced the areas where the birds can nest, but also gives their predators cover.

U.S. Forest Service wildlife biologist Kerrie Palermo gets on her hands and knees to help construct a pen that protects a Western snowy plover nest.



The Incredible Shrinking Dunes

has been so devastating. Predators, like skunks and raccoons, hide in it to get a bead on the eggs before the parents can begin their diversionary tactics.

Swift places her baseball cap over the eggs to keep them warm while she and the workers erect an octagonal 15-by-15, 4-foot-high cage around the nest. Then they stretch several lines of string across the top, creating one of a ceiling to keep the crows out.

She tries to finish each pen in an

hour so the parents won't give up on the nest, but this one takes longer. The birds pop up closer and closer on the periphery until one lies on the sand 30 feet away and awkwardly flaps her wings to make herself look crippled and a more inviting target than her eggs.

"They're getting antsy," she says, picking up the pace.

Swift is a Nature Conservancy employee and naturalist nomad, rescuing wildlife in Texas, Alaska, Arizona and

elsewhere before coming to the Oregon coast last year. She watches the nests and tries to be nearby when or if the eggs hatch so she can band the babies for counting and tracking before they leave. She knows many eggs won't make it. Despite signs telling people to keep out of the nesting area, many will walk right in anyway.

Once the cage is built, Swift bends one side back, lifts her right foot over the edge and then half hops, half flops inside. She weighs each egg in a beaker of water and can tell how far along they are by how they float.

Seconds after she leaves the nest, the plovers slip through the fence and back to their eggs (which eventually hatched). The dunes' plover count rose from eight in 1993 to 20 in 1997. The numbers are expected to fall below 20 this year.

ALTHOUGH THE PLOVERS don't take up much room, they are a hard sell to many locals and off-road drivers who have seen favorite areas closed.

Fifteen miles south of the plover nest, an ex-Marine named Shirley pulls his M-37 weapons carrier, the Korean War's version of the Dodge Power Wagon, to the top of a mushy sand dune. He stops on a rippled terrace that looks compacted enough to keep the vehicle from sinking in and becoming a permanent part of the landscape.

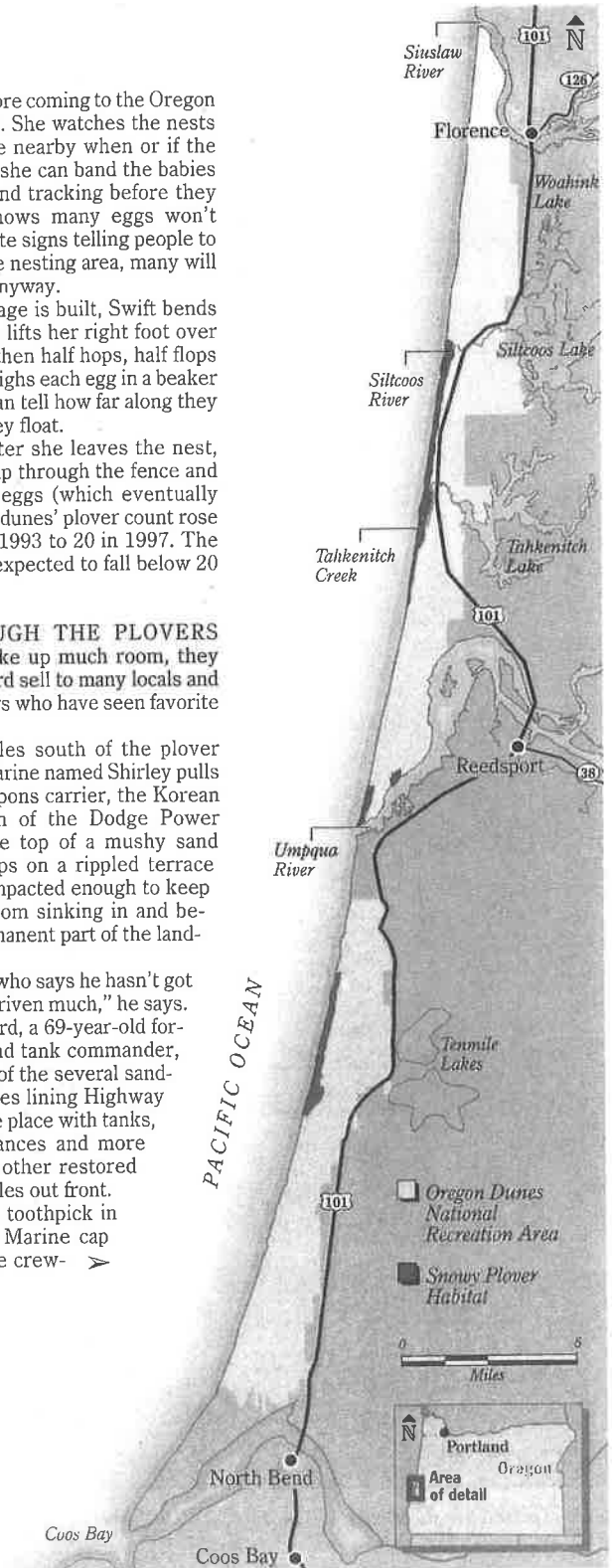
"Anybody who says he hasn't got stuck hasn't driven much," he says.

Shirley Laird, a 69-year-old former logger and tank commander, operates one of the several sand-tour businesses lining Highway 101. His is the place with tanks, jeeps, ambulances and more than a dozen other restored military vehicles out front.

He's got a toothpick in his mouth, a Marine cap atop his white crew- ➤

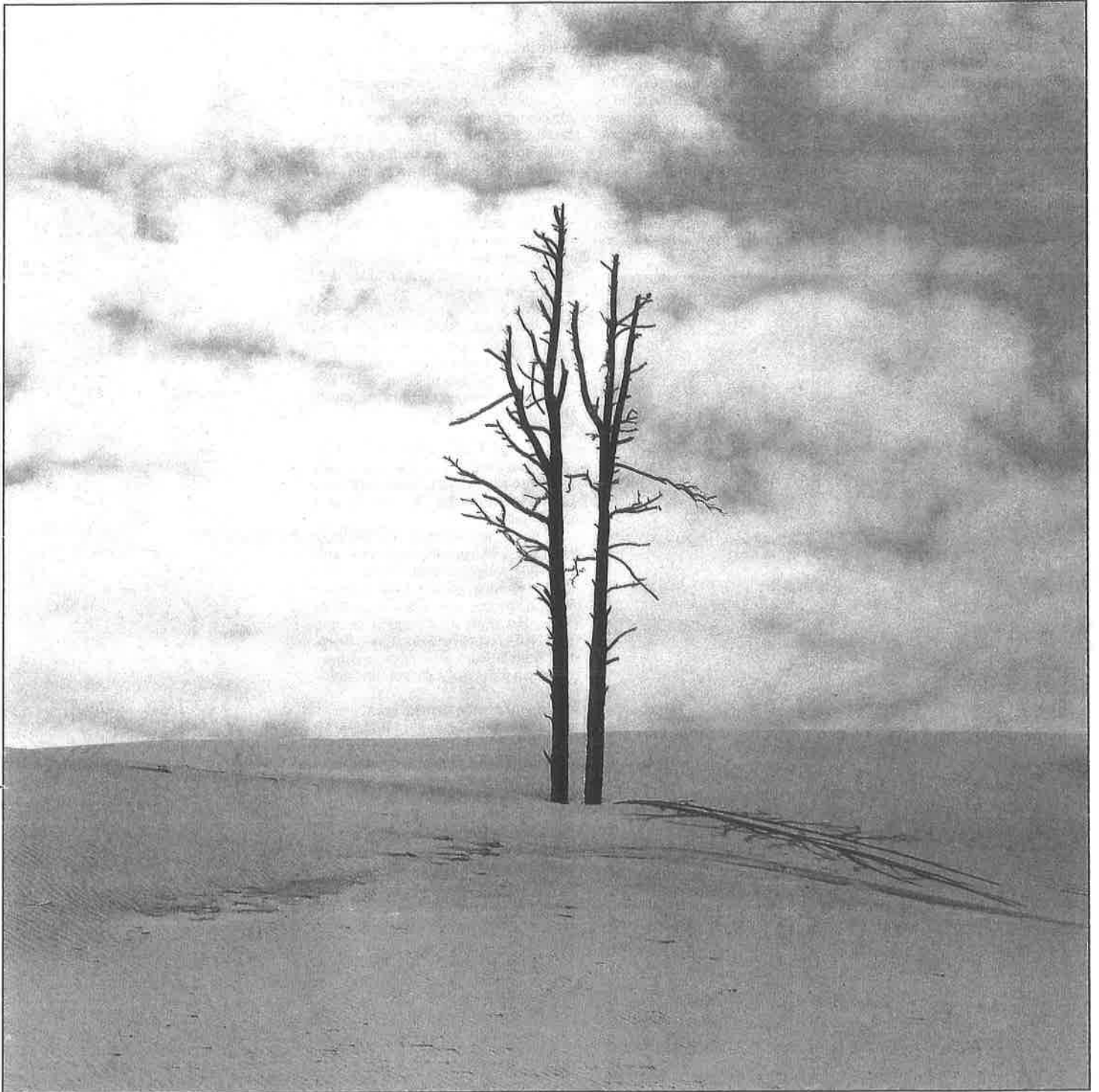


The Oregon Dunes

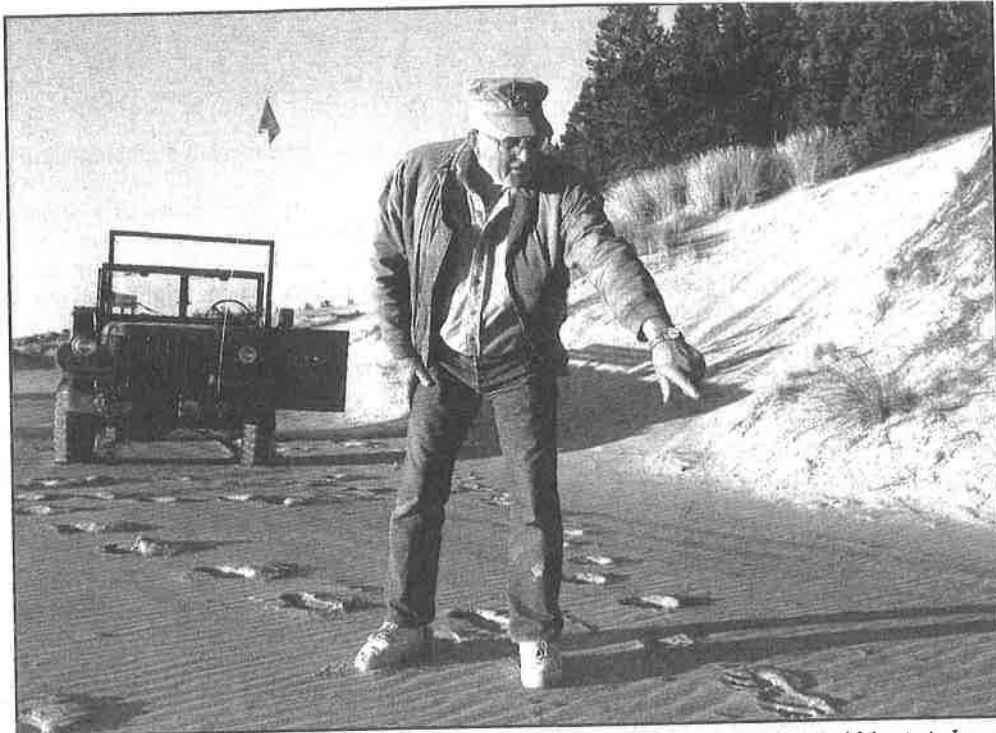


THE SEATTLE TIMES

The Incredible Shrinking Dunes



The top of a dead tree sticks out of a dune Florence, Ore., where a Fred Meyer store is planned.



Shirley Laird, an ex-Marine who runs a sand-tour business along Highway 101, spots bear tracks. "Now it's all about birds, bees, bugs and BS," Laird says.

cut and, on his left hand, a brown leather glove he found amid bear tracks a few minutes ago. He's funny and excitable, with a voice so high-pitched and upbeat it sounds like quacking. He's happiest when driving the dunes in one of his tanks or re-building military equipment like his current project, a mobile rocket launcher.

Laird makes his living bringing tourists to this dune's apex so he can give them the lay of the land, a pill bottle of Oregon sand, and a rush by diving his vehicle off its steep edge. He also takes the special jobs like transporting rock-video crews, including one that brought a painted, naked and bald model to frolic down the side of dune while carrying a flag. It was supposed to be some fantasy alien invasion, he explains, and was a "damn weird" thing to see.

He was raised a few miles south of here in Coquille and remembers when he could race up and down the sand wherever he pleased. Now many of the lowland trails are crowded with brush. The Forest Service hems riders into certain spots and environmentalists are clamoring for an outright ban. The plover, he says, can take care of itself.

"Now it's all about birds, bees, bugs and BS," Laird says.

CONGRESS CREATED THE PROTECTED recreation area in 1972 after more than a decade of argument and revision. Opponents wanted to keep it open for possible development, but today it is easily the largest swath of public land abutting Oregon's seashore.

The area rests on the Coos Dunal Sheet, a 56-mile-wide submerged coastal plain bracketed to the north and south by steep

headlands and to the east by tree stands. It is a dust pan that collects sand swept by tides and wind.

The dunes have been millions of years in the making, but scientists generally believe they formed as we know them about 6,000 years ago, after the last Ice Age. The sand was dumped on the beaches when the sea advanced on the coastline, then was blown inland by heavy winter winds.

Native Americans and early white settlers traveled the coast on the beaches and dunes. But it didn't take leaders of turn-of-the-century settlements long to decide they needed to fence moving sand from the rivers, roads and towns. European beachgrass (*ammophila arenaria*) had already stabilized much of the peninsula that became San Francisco. No one seemed concerned at the time about depending on a non-native grass.

The grass, now found from British Columbia to Southern California, spread from the boundaries of the dunes to the beaches themselves. It trapped blowing sand and snared logs. Grass and sand built up into walls called foredunes that parallel the coastline above high tide, reaching 30 feet high and 200 feet wide.

The foredunes, the theory goes, stop new sand from entering the dunes, essentially starving them. They also cause the wind to scoop out sand down to the water table on their lee sides. There, plants and trees take hold. The wetlands, called deflation plains, have been marching east for decades.

The problem began getting attention around 1970, but little was done. There were ideas and a few tests, but no money or progress. The Oregon Dunes Restoration Council, a citizens' group, campaigned >

The Incredible Shrinking Dunes

for an assault on the grass for years, only to see the focus remain on the war between riders and walkers.

"It is like being told you have terminal cancer and then stewing about what color shoelaces you should buy," says council president Brian Cole, so frustrated he avoids the dunes now.

Forest Service workers set 30 acres of foredune and thick deflation plain afire this summer. The Oregon National Guard then used heavy machinery to knock 3 feet off the foredunes and open pathways angled toward prevailing winds. The plan is to get sand blowing in again to replenish dunes, retard vegetation and naturally erode more of the barrier.

The Forest Service has burned other areas and found that fire is not enough. Fire actually invigorates the grass, which has an extensive root system and thrives buried in as much as 3 feet of sand. If necessary, workers will hand-spray the burned grass with an herbicide over the next decade.

The 10-year experiment, which could eventually encompass more than 600 acres, is being done at the Scenic Dunes Overlook Area, the only place in the sprawling recreation area where motorists can stop along the highway and view dunes. The problem with the overlook is it looks over more brush and trees than sand.

No one is sure the plan will work, but critics are sure it won't.

We may have compacted a 1,000-year cycle into 100, says geologist Alfred Wiedemann of The Evergreen State College, but short of spending millions and resorting to massive aerial spraying, there is no going back until nature — an earthquake, a tsunami or other phenomena — decides it's time.

Wilbur Ternyik, the man who planted much of the grass under government directive, says the Forest Service is spitting in the wind.

"They'll destroy acres of wetlands for a quarter-inch of sand," says

Ternyik, 72.

A former mayor of Florence and a longtime port commissioner, Ternyik has stabilized Oregon dunes for more than 50 years and is still doing it to pave the way for golf courses and industrial parks. He is slender, weathered and tough, just like the beachgrass he plants.

He maintained a beachgrass nursery on the dunes for years and is a wetlands defender now. You don't have to look too far past the protected lakes, estuaries, towns, roads, parks to see the good the grass has done, he says.

He stands on the south jetty along the mouth of the Siuslaw River and squints up at a massive foredune he helped build in the '50s to protect the channel. The foredune is so covered with grass waving in the wind that it looks as if it's moving.

"I'm darn proud of that," he says. He turns around and looks across an expansive wetland that once was all sand and on to Florence on the other side of

the river. The town is a stabilized dune, too.

"European beachgrass is a super-good sand stabilizer and a naturalized citizen of the United States," he says. "You just have to use it right. Too many people didn't."

THE ISSUE WOULD BE DIFFICULT enough if it were just about losing a geologic wonder. But the dunes, once considered a wasteland where the military practiced bombing, are not only disappearing, they are in demand. Two thousand annual visitors make them Oregon's second-most popular natural attraction, behind Multnomah Falls.

Ranger Becker gets blamed for restricting access by all-terrain vehicles and for giving them any at all; for giving the plover room and maybe not enough. He is blamed for not attacking the grass harder and ridiculed for trying at all. He is blamed for charging users \$3 a visit to help the district's shrinking

recreation budget, now half of what it was four years ago. He is blamed for saying no to all kinds of entrepreneurial schemes, like dune taxis to a casino at Coos Bay.

The main conflict, as it always has been, is between walkers and riders.

Environmentalists say off-roaders destroy the land, disturb the wildlife and shatter peace and quiet. "Macho big boys in their sandbox," says one. Riders, confined to 40 percent of the sand, say this is a *recreation* area, and while few people actually walk the sand fields, dune drivers come from across the West and spend money.


Both, at least, agree on the grass.

"I think they realize if something isn't done, there won't be anything left to fight over," Becker says.

It could be worse. As he ticks off the issues, Becker walks through a shaded forest trail of Douglas fir and manzanita that crosses Eel Creek and passes a lagoon. It is sunny and 70 degrees, with a soft coastal breeze. The trail stops sud-

denly at the foot of the Umpqua Scenic Dunes, some of the highest and purest walking-only dunes left.

There are pale, soft hills and sharp, rippled ledges, two rainwater ponds, an ancient tree island and odd sand-and-grass knobs called hummocks. The gobbling jumble of vegetation is still about a mile away to the west. There is no one in sight, only fading footprints.

With a little imagination it could be a snowfield on Mount Rainier or the high country of Arizona or the planet Frank Herbert saw. These dunes look so strong and content they make you imagine for an instant that the grass is just their way of getting rid of us. 

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